Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

Claim 1. (currently amended) An isolated biopolymer marker consisting of SEQ ID NO:1 indicative of insulin resistance.

Claims 2-38. (cancelled)

Claim 39. (currently amended) A method for determining [[the]] presence of an isolated biopolymer marker indicative of insulin resistance consisting of SEQ ID NO:1 from a mass spectrometric analysis of a sample obtained from a patient comprising:

(a) ~~obtaining a sample from a patient~~ preparing said sample for a mass spectrometric analysis by subjecting proteins contained in said sample to chromatography, electrophoresis and enzymatic digestion;

(b) conducting mass spectrometric analysis on said sample as prepared in step (a) ~~in a manner effective to maximize analysis of~~ to obtain mass spectral profiles of ~~peptide fragments~~ peptides contained therein; [[and]]

(c) comparing ~~mass spectrum profiles~~ a reference mass spectral profile characteristic of a [[said]] isolated biopolymer marker consisting of SEQ ID NO:1 having an ion peak at about 1312 daltons to mass ~~spectrum~~ spectral profiles of peptides obtained ~~and analyzed~~ from said sample; and

~~(c) confirming the presence of said isolated biopolymer marker consisting of SEQ ID NO:1 in said sample displaying a peak profile at about 1312 daltons in said mass spectrum profile; and~~

~~wherein the presence of said isolated biopolymer marker consisting of SEQ ID NO:1 is indicative of a link to insulin resistance~~

(d) matching said reference mass spectral profile to a mass spectral profile of a peptide obtained from said sample by identifying said ion peak at about 1314 daltons;

wherein a match confirms presence of a biopolymer marker indicative of insulin resistance consisting of SEQ ID NO:1.

Claim 40. (previously presented) The method of claim 39, wherein said sample is an unfractionated body fluid or a tissue sample.

Claim 41. (previously presented) The method of claim 39, wherein said sample is selected from the group consisting of blood,

blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 42. (previously presented) The method of claim 39, wherein said mass spectrometric analysis is selected from the group consisting of Surface Enhanced Laser Desorption Ionization (SELDI) mass spectrometry (MS), Maldi Qq TOF, MS/MS, TOF-TOF, ESI-Q-TOF and ION-TRAP.

Claim 43. (previously presented) The method of claim 39, wherein said patient is a human.

Claim 44. (currently amended) A kit for determining [[the]] presence of an isolated biopolymer marker indicative of insulin resistance consisting of SEQ ID NO:1 comprising: (a) a peptide consisting of SEQ ID NO:1 and (b) an antibody that binds to said peptide in a sample obtained from a patient.

Claim 45. (previously presented) The kit of claim 44, wherein said antibody is immobilized on a solid support.

Claim 46. (previously presented) The kit of claim 44, wherein said antibody is labeled.